

STATUS OF CLAIMS:

Claim 1 (Withdrawn): A process for producing a heat-resistant resin film having a metallic thin film, comprising the steps of:

coating a substrate with a releasing agent;

forming a metallic thin film thereon;

forming a layer containing a heat-resistant resin thereon; and

peeling an accumulated body containing the layer of heat-resistant resin and the metallic thin film from the substrate.

Claim 2 (Withdrawn): The process for producing a heat-resistant resin film having a metallic thin film as claimed in claim 1, wherein a surface of the metallic thin film is subjected to a chemical etching treatment before forming the heat-resistant resin layer.

Claim 3 (Original): A process for producing an endless belt having a metallic thin film, comprising the steps of:

forming a metallic thin film on an inner surface of a cylindrical substrate;

forming a layer containing a heat-resistant resin thereon; and

peeling an accumulated body containing the heat-resistant resin layer and the metallic thin film from the substrate.

Claim 4 (Original): The process for producing an endless belt having a metallic thin film as claimed in claim 3, wherein a surface of the substrate is coated with a releasing agent before forming the metallic thin film.

Claim 5 (Original): The process for producing an endless belt having a metallic thin film as claimed in claim 3, wherein a surface of the metallic thin film is subjected to a chemical etching treatment before forming the heat-resistant resin layer.

Claim 6 (Original): The process for producing an endless belt having a metallic thin film as claimed in claim 3, further comprising the step of:

applying a compression force to the accumulated body of the metallic thin film and the layer of heat-resistant resin peeled off from the substrate in a thickness direction thereof.

Claim 7 (Original): The process for producing an endless belt having a metallic thin film as claimed in claim 3, wherein the step of forming the layer containing a heat-resistant resin comprises the steps of:

forming a layer of a polyamide acid solution on the metallic thin film; and
subjecting the layer to imidization by heating to form a film member containing polyimide.

Claim 8 (Original): The process for producing an endless belt having a metallic thin film as claimed in claim 3, wherein the step of forming the layer of a heat-resistant resin comprises the steps of:

- placing a polyamide acid solution in an interior of the cylindrical substrate;
- rotating the cylindrical substrate in a circumferential direction to make the solution be a layer on the metallic thin film; and
- subjecting the solution to imidization by heating to form a film member containing polyimide.

Claim 9 (Original): The process for producing an endless belt having a metallic thin film as claimed in claim 3, wherein the step of forming the layer of a heat-resistant resin comprises the steps of:

- placing a polyamide acid solution in an interior of the cylindrical substrate;
- rotating the cylindrical substrate in a circumferential direction to make the solution be a layer on the metallic thin film; and
- subjecting the solution to imidization by heating to form a film member containing polyimide, and wherein a porous film of a fluorine resin or a nonwoven fabric of a heat-resistant resin is arranged to closely attach to an inner surface of the substrate before forming the layer of the polyamide acid solution.

Claim 10 (Original): The process for producing an endless belt having a metallic thin film as claimed in claim 3, wherein the step of forming the layer of a heat-resistant resin comprises the steps of:

forming a layer of a polymer solution of aromatic polyamide on the metallic thin film; and
removing a solvent contained in the solution.

Claim 11 (Original): The process for producing an endless belt having a metallic thin film as claimed in claim 3, wherein the step of forming the layer of a heat-resistant resin comprises the steps of:

placing a polymer solution of aromatic polyamide in an interior of the cylindrical substrate; and
rotating the cylindrical substrate in a circumferential direction.

Claim 12 (Original): The process for producing an endless belt having a metallic thin film as claimed in claim 3, wherein the step of forming the metallic thin film comprises the step of:

conducting electroplating or electroless plating on an inner surface of the cylindrical substrate.

Claim 13 (Original): The process for producing an endless belt having a metallic thin film as claimed in claim 3, wherein the step of forming the metallic thin film comprises the step of:

attaching a metallic foil on an inner surface of the cylindrical substrate.

Claim 14 (Original): The process for producing an endless belt having a metallic thin film as claimed in claim 3, further comprising the step of:

forming a layer of a heat-resistant resin on an outer surface of the accumulated body of the metallic thin film and the layer of heat-resistant resin peeled off from the substrate.

Claim 15 (Withdrawn): An endless belt having a metallic thin film produced by a process comprising the steps of:

forming a metallic thin film on an inner surface of a cylindrical substrate;

forming a layer containing a heat-resistant resin thereon; and

peeling an accumulated body containing the layer of heat-resistant resin and the metallic thin film from the substrate.

Claim 16 (Withdrawn): The endless belt as claimed in claim 15, wherein the heat-resistant resin film is produced by forming a layer of a polyamide acid solution on the metallic thin film, and conducting imidization by heating to form a layer containing a polyimide heat-resistant resin.

Claim 17 (Withdrawn): The endless belt as claimed in claim 15, wherein the metallic thin film is produced by forming a metallic thin film by conducting electroplating or electroless plating on an inner surface of the cylindrical substrate.

Claim 18 (Withdrawn): An endless cylindrical belt having a metallic thin film, comprising:

a layer containing a heat-resistant resin on an inner surface of the metallic thin film, the metallic thin film being a metallic foil, the metallic thin film having a junction of joining both ends of the metallic thin film, and the layer of a heat-resistant resin having no junction.

Claim 19 (Withdrawn): The endless belt having a metallic thin film as claimed in claim 18, wherein an electric junction aid in a form of an electroconductive paste is inserted between the overlapping both ends of the metallic thin film at the junction of the metallic thin film.

Claim 20 (Withdrawn): An apparatus for forming an image, comprising:
an image carrier, in which a latent image caused by differences in electrostatic potential is formed on an endless surface thereof;

a developing unit developing the latent image by attaching toner powder containing a thermoplastic resin to the image carrier;

an intermediate transfer member, on which a toner image formed on the image carrier is temporarily transferred; and

a transferring and fixing unit heating the toner image on the intermediate transfer member and press-fixing the molten toner image on a recording medium, wherein the intermediate transfer member is the endless belt according to claim 18, and the transferring and fixing unit contains an electromagnetic induction coil arranged to face the intermediate transfer member.

Claim 21 (Previously Presented): A process for producing an endless belt, comprising the steps of:

forming a metallic thin film on an inner surface of a drum;
forming a layer containing a heat-resistant resin on the inner surface of the drum;
separating an accumulated layer containing the metallic thin film and the heat-resistant resin layer from the inner surface of the drum.

Claim 22 (Previously Presented): The process according to claim 21, wherein the inner surface of the drum is coated with a releasing agent before forming the metallic thin film.

Claim 23 (Previously Presented): The process according to claim 21, wherein the inner surface of the metallic thin film is subjected to a chemical etching treatment before forming the heat-resistant resin layer.

Claim 24 (Previously Presented): The process according to claim 21, further comprising the step of applying a compression force to the accumulated body of the metallic thin film and the layer of heat-resistant resin peeled off from the inner surface of the drum in a thickness direction thereof.

Claim 25 (Previously Presented): The process according to claim 21, wherein the step of forming the layer containing a heat-resistant resin comprises the steps of:

forming a layer of a polyamide acid solution on the metallic thin film; and
subjecting the layer to imidization by heating to form a film member containing polyimide.

Claim 26 (Previously Presented): The process according to claim 21, wherein the step of forming the layer of a heat-resistant resin comprises the steps of:

placing a polyamide acid solution in an inner surface of the drum;
rotating the drum in a circumferential direction to make the solution be a layer on the metallic thin film; and
subjecting the solution to imidization by heating to form a film member containing polyimide.

Claim 27 (Previously Presented): The process according to claim 21, wherein the step of forming the layer of a heat-resistant resin comprises the steps of:

placing a polyamide acid solution in the inner surface of the drum;
rotating the drum in a circumferential direction to make the solution be a layer on the metallic thin film; and
subjecting the solution to imidization by heating to form a film member containing polyimide, and wherein a porous film of a fluorine resin or a nonwoven fabric of a heat-resistant resin is arranged to closely attach to the inner surface of the drum before forming the layer of the polyamide acid solution.

Claim 28 (Previously Presented): The process according to claim 21, wherein the step of forming the layer of a heat-resistant resin comprises the steps of:

forming a layer of a polymer solution of aromatic polyamide on the metallic thin film; and

removing a solvent contained in the solution.

Claim 29 (Previously Presented): The process according to claim 21, wherein the step of forming the layer of a heat-resistant resin comprises the steps of:

placing a polymer solution of aromatic polyamide in the inner surface of the drum; and

rotating the drum in a circumferential direction.

Claim 30 (Previously Presented): The process according to claim 21, wherein the step of forming the metallic thin film comprises the step of:

conducting electroplating or electroless plating on the inner surface of the drum.

Claim 31 (Previously Presented): The process according to claim 21, wherein the step of forming the metallic thin film comprises the step of:

attaching a metallic foil on the inner surface of the drum.

Claim 32 (Previously Presented): The process according to claim 21, further comprising the step of:

forming a layer of a heat-resistant resin on an outer surface of the accumulated body of the metallic thin film and the layer of heat-resistant resin and peeling off an accumulated body from the inner surface of the drum.